

July 29, 1946.

Dear Sam:

*Graff.*

Please forgive me for having delayed so long about this, but I am forwarding the three purine or pyrimidine cultures of E coli mutants that we have. My only excuse is that I have been exceedingly busy trying to get some more conclusive data on sexuality in bacteria. If I have made no mistakes, it is conclusive already, but something like this has to be checked n times. A sign of it is that there already quite a few people getting on the badiwagon already, and I think the next year should see a real spurt in the study of bacterial genetics in many labs.

As for the mutants: They were all obtained from E. coli 58, which is a biotinless mutant. Therefore they each require ca. .01 microgr. per 10 ml. medium for optimum growth. In addition, 58-5273 needs either ~~xanthine~~ <sup>adenine</sup> or hypoxanthine; 58-5417 either uracil or cytosine; 58-5631 will grow if any purine is added- adenine, guanine, xanthine, or hypoxanthine. We have no thymineless strains; you might approach Lampen, I hope this stuff may be useful as an assay tool. If you contemplate going into the biosynthesis using these mutants, we would very much appreciate your consulting us about them. Do. as far as letting them out elsewhere is concerned. They are sent by courtesy of Dr. Tatum who isolated them following treatment with ~~Diethylstilbestrol~~ N- di(B-chloroethyl)-methyl amine (Nitrogen Mustard). I know I sound like a stuffed shirt, but I've got sort of a swelled head about the reception to the work I've been doing. It's diminishing, however. The assembly line method for isolating mutants is working fine; I just sent off a letter to the Editor of JBC, so you can read about it there.